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ABSTRACT

Compilation of data on the unemployment and employment of artists on a base comparable with the data for the total U.S. population is presented. Tables present the main body of information about employment and unemployment. A brief summary of highlights is also included. Material presented is technical and intended for persons who are specially concerned about the reliability of the data and its use for trend projection. The period covered is from 1970 through 1975. Breakdown is for males and females, and for architects, actors, authors, dancers, designers, musicians and composers, painters and sculptors, and photographers. (KE)

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Employment and Unemployment of Artists: 1970-1975

National Endowment for the Arts



April 1976

LIbrary National Center for Higher Education

US DEPARTMENT OF HEALT EDUCATION & WELFARE HATIONAL INSTITUTE OF EDUCATION

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Introduction

The employment of persons in artistic occupations and the complementary number of unemployed in artistic occupations are the subjects of this report. Information about unemployment is always more urgent since it is a measure of a serious deficiency. However, the two subjects cannot be isolated from each other since they are based on the same data. The relationship has been described as that of the doughnut and the hole.

Compilation of data on the unemployment and employment of artists on a base comparable with the data for the total U. S. population is possible because of the work of the Bureau of the Census and the Bureau of Labor Statistics. The data used in this report for 1970 is from the 1970 Census of Population. The data for subsequent years is from annualized monthly averages from the monthly Current Population Studies conducted for the Bureau of Labor Statistics by the Bureau of the Census. The Bureau of

^{1/} Shiskin, Julius, Commissioner of Labor Statistics,
 "Employment and Unemployment: The Doughnut or the Hole?
 Monthly Labor Review, February 1976, p. 3.

Labor Statistics has released to the National Endowment for the Arts detailed data on artistic occupations for 1971 - 1975 that has not been made available through its regular publications.

The style adopted for this report uses tables to present the main body of information about employment and unemployment. Tables 1 - 3, and Figure 1, are a summary data presentation in simple form. The following Tables 4 - 9 are very detailed and provide dara that should be helpful to readers interested in the statistical basis for the percent unemployment that is reported. The text is a brief summary of highlights from the tables. Three Appendices with several tables and a figure complete the report. This final material is very technical and is intended for persons who are specially concerned about the reliability of the data and its use for trend projection as well as needs for additional research.

In reading the report, the differences in the data source for 1970 and 1971 - 1975 should be remembered. The statistical reliability of the data for the latter years is much less because of the differences in sample size. "Standard Errors" are shown in Tables 3 - 9. The use of this measure for data reliability is discussed in the appendices.

Summary of Employment and Unemployment Changes From 1974 to 1975

The most striking observation from the examination of employment and unemployment data for the artistic occupations is the increase in the total work force that has occurred in recent years. In 1975, the employment of artists continued to increase and the total experienced Writers, Artists, and Entertainers labor force grew at a Changes in unemployment followed the general rate of 5.5%. trend of the U.S. population and was substantially greater in 1975 than in 1974. Table 1 summarizes the percent unemloyment for selected artistic occupations in 1974 and 1975. The percent unemployment increased for most of the selected occupations and was substantially greater than for all Professional, Technical, and Kindred Workers. The increase or decrease in the percent unemployment for these two years should be interpreted carefully in the light of the Standard Errors shown in Tables 8 and 9 and Appendix II on Employment and Unemployment Trends. Table 2 compares percent unemployment for Writers, Artists, and Entertainers with that of all Professional, Technical, and Kindred Workers for the period 1970 - 1975.

TABLE 1

COMPARISON OF UNEMPLOYMENT FOR SELECTED OCCUPATIONS WITH ALL PROFESSIONAL, TECHNICAL AND KINDRED WORKERS: 1974 and 1975

		1	
	1974	1975	'Change 1/
All Professional, Tech- nical & Kindred Workers	2.3%	3.2%	+.9%
Architects	2.7%	5.4%	+2.7%
Actors	47.4%	35.0%	-12.4%
Authors	2.1%	4.3%	+2.2%
Dancers	** *	*	* * * .
Designers	2.3%	7.4%	+5.1%
Musicians & Composers	4.1%	7 • 9%	+3.8%
Painters & Sculptors	3.2%	5.8%	+2.6%
Photographers .	3.8%	6.2%	+2.4% <u> </u>

^{*} Data base is too small to provide a meaningful estimate.

1/ See Appendix II and Standard Errors in Tables 8 and 9.

Source: See Tables 8 and 9 for data source.

TABLE 2

COMPARISON OF UNEMPLOYMENT FOR WRITERS, ARTISTS AND ENTERTAINERS WITH ALL PROFESSIONAL, TECHNICAL AND KINDRED WORKERS: 1970 - 1975

	% Unemployment Writers, Artists & Entertainers	% Unemployment All Professional, Technical and Kindred Workers
1970 1/	4.6%	1.8%
1971 2/	7.1%	2.9%
.1972 . <u>2</u> /	5 . 6%	2.4%;
1973 2/	4.8%	2.2%
1974 2/	4.8%	2.3%
1975 <u>2</u> /	7.4%	3.2%

Table 51, U.S. Bureau of the Census, Census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

Unpublished data furnished by the Bureau of Labor Statistics.

How Many Artists?

In the 1970 Census, the total of Writers, Artists, and Entertainers in the labor force was 797,574 persons. The Bureau of Labor Statistics data for 1975 is 1,055,000. persons in the same group. The increase reflects a compounded annual growth rate for the 5 year period of 5.7%. At this rate of growth, the labor force of artists would double in a period of about 12.5 years. Data on the growth of the artistic occupations labor force for the 1970 - 1975 period is presented in Table 3. Figure 1 illustrates graphically the rise in this labor force during the period and the changes in the subgroups of the unemployed and employed.

Unemployment of Artists

For 1975, the percent unemployment of all Professional, Technical, and Kindred Workers is 3.2%. This compares with 7.4% for the Writers, Artists, and Entertainers occupational group. Among the selected artistic occupations in 1975, the following unemployment rates are reported:

Architects -- 5.4%, Actors -- 35.0%, Authors -- 4.3%, Designers -- 7.4%, Musicians and Composers -- 7.9%, Dancers -- (inadequate data), Painters and Sculptors -- 5.8%, and Photographers -- 6.2%.

TABLE 3,

TOTAL WRITERS, ARTISTS AND ENTERTAINERS, GROWTH OF LABOR FORCE AND UNEMPLOYMENT: 1970 - 1975

Standard Error of. % Unem- ployment	.1%	. 2%	. 4%	. 4%	. 4%	. 5%
, % Unem- ployed	4.6%	7.1%	. 2.6%	4.8%	4.8%	7.4%
Number Unem- ployed	36,480	60,000	500,	45,000	48,000	78,000
Growth Rate From Previous Year		6.1%	%0 ° 9	3.6%	7.6%	5.5%
Total	797,574	846,000	897,000	929,000	1,000,000	1,055,000
Year 1/	, , , , , , , , , , , , , , , , , , ,	1971 - 1	1972 –	· // 1973 - /		1975

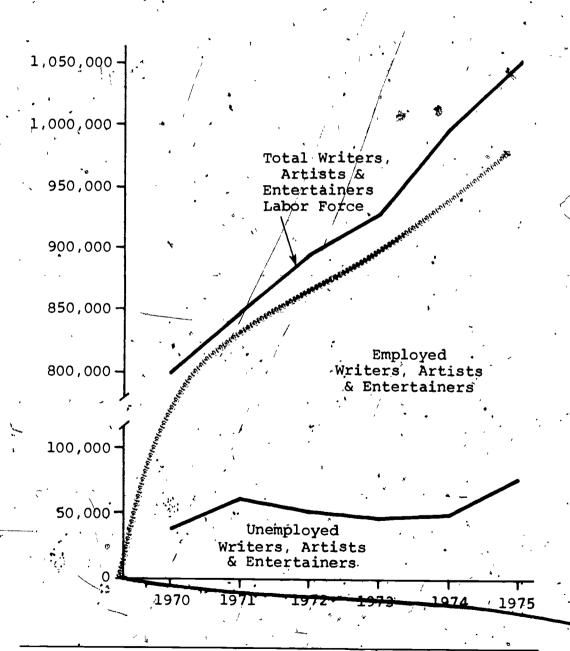
-10-

Table 51, U.S. Bureau of the Census, Census of Population: 1970 Sub-lect Reports, Final Report PC(2)-7A, Occupational Characteristics.

Unpublished data furnished by the Bureau of Labor Statistics

FIGURE 1

TOTAL WRITERS, ARTISTS AND ENTERTAINERS LABOR FORCE, EMPLOYED AND UNEMPLOYED: 1970 - 1975



Source: Table 3

12

Unemployment of Writers, Artists, and Entertainers as a broad occupational group was 4.6% in 1970. In the five years since 1970, the percent of unemployment of Writers, Artists, and Entertainers fluctuated annually and roughly followed the trend in unemployment of all Professional, Technical, and Kindred Workers but at a rate 2 to 2½ times greater.

Tables 4 - 9 present a detailed analysis of the total experienced labor force for selected artistic occupations, the number and percent unemployed, and Standard Errors of the percent unemployed statistics. This data is provided for Architects, Actors, Authors, Dancers, Designers, Musicians and Composers, Painters and Sculptors, and Photographers, or both sexes combined and separately. Similar statistics are provided in these tables for the larger group of all Professional, Technical, and Kindred Workers for comparison. Separate tables are provided for each year from 1970 to 1975.

As a result of the difference in the basis for the 1970 Census and the annualized averages from the Current Population Studies data for the subsequent years, standard Errors of percent unemployment are fairly large for some of the occupations in 1971 - 1975. Users of

this report are cautioned against plotting an unemployment trend line with the data for individual artistic
occupations reported in Tables 4 - 9 before considering
the information in Appendix II, Employment and Unemployment trends.

A very significant observation from the examination of the tables for the six years is the very great difference in unemployment in the artistic occupations. Unemployment is most severe among Actors ranging from a high percentage. Of 47.4% recorded in both 1971 and 1974 to a low of 33.4% recorded in 1970. The percent unemployment of Actors in 1975 is 35%, close to the low of 33.4% in 1970, and contents with unemployment among the other artistic occupations as the only one in which there was a decrease in 1975. As the Standard Errors of percent unemployment of Actors are fairly high, caution should be taken in making trend comparisons.

Dancer's are second in percent unemployment ranging from a low of 14.5% in 1970 to a high of 30% in 1971. The data on unemployment of Dancers is considered unreliable except for the Census Year 1970 and comparisons with other occupations should be limited to that year. This is because of

the relatively small number of Dancers and the difficulty of obtaining satisfactory data for this occupational group in the sample used for the monthly Current Population Studies.

In contrast to Actors and Dancers, the other selected artistic occupations in Tables 4 - 9 are represented by a sufficiently large number of persons in the labor force so that the data on percent unemployment is more useful.

TABLE 4

* * .				•
,	Total Experienced	Number	. •	Standård Error
	Labor Force (thousands)	Unemployed (thousands)	% Unem- ployment	% Unem- ployment
All Professional, T	ech-			
nical & Kindred Wor Male Female	11,667.0 6,992.3 4,674.7	$ \begin{array}{r} 215.1 \\ 116.4 \\ 98.7 \end{array} $	1.8% 1.7% 2.1%	1% 1% 1%
Architects Male Female	$ \begin{array}{c c} $		1.4% 1.3% 2.0%	.4% .4% 1.7%
Actors Male Female	14.1 8.2 5.9	$\frac{4.7}{2.6}$	33.4% -32.2% 35.0%	2.2% 2.9% 3.4%
Authors Male Female	26.0 18.1 .7.9	1.1	$\frac{4.1\%}{4.1\%}$ 4.1%	.6% .8% 1.2%
Dancers Male Female	6.9 1.3 5.7	1.0 .3 .8	14.5%* 20.9% 13.3%	2.2% 5.5% 2.3%
Designers Male Female	112.3 85.2 27.1	$\frac{3.5}{2.0}$	3.1% 2.4% 5.5%	.2% .3% .7%
Musicians & Compose Male Female	96.5 63.7 32.9	6.5 5.1 1.4	6.7% 8.0% 4.1%	3% 7%
Painters & Sculptor Male Female	<u>107.5</u> 67.9 39.6	4.1 2.0 2.1	3.8% 2.9% 5.3%	2% .3% .6%
Photographers Male Female	66.0 56.5 9.4	2.0	210%	3%
· ·		.6	6.7%	1.1%

Source: Table 51, U.S. Bureau of the Census, census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

TABLE 5

TOTAL LABOR FÖRCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1971

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Tecnical & Kindred Worke Male Female		331 188 . 143	2.9% 2.7% 3.2%	.1% .1% .1%
Architects Male Female	70 67 . 3	$\frac{1}{1}$	1.4% 1.5%	<u>. 8%</u> . 8%
Actors Male Female	19 11 8	94 5	47.4% 36.4%	7.7% 9.1%
Authors Male Female	33 21 12	2 1 1	6.1% 4.8% 8.3%	2.5% 2.8% 4.6%
Dancers Male Female	10 1 9	3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3	30.0%	. <u>8.7%</u>
Designers Male Female	. <u>106</u> . - 28	7/4	6.6% 5.1% 10.7%	1.4% 1.4% 3.5%
Musicians & Composers Male Female	126 •82 45	10 8 2	7.9% 9.8% 4.4%	1.5% 1.9%
Painters & Sculptors Male Female	130 82 48	5/2 2 3	3.8% 2.4% 6.3%	1.0% 1.0% 2.0%
Photographers Male Female	81· 67 13	$\frac{4}{2}$	4.9% 3.0% 7.7%	1.3% 1.2% 4.5%

^{*} Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 6

		Total Experienced	Number		Standard Error
		Labor Force (thousands)	Unemployed (thousands)	% Unem- ployment	% Unem- ployment
	All Professional, Tecnical & Kindred Worke Male Female	eh- ers 11,741 7,110 4,631 ;	282 153 129	2.4% 2.2% 2.8%	.1% .1% .1%
	Architects Male Female	68 66 2	2/2 0	2.9% 3.0% *	1.1%
	Actors Male Female	18 13 5	8 5 3	44.4% 38.5%	8.1% 8.7%
	Authors Male Female	31 18 13	1 0	3.2% 5.6%	1.9% 3.4%
	Dancers Male Female		$\frac{1}{0}$	*	<u>-</u>
	Designers Male Female	113 91 21		2.7% 2.2% 4.8%	•9% •9% 2•9%
	Musicians & Composers Male Female	130 92 39	9 8 1	6.9% 8.7% 2.6%	1.3% 1.8% 1.4%
	Painters & Sculptors Male Female	137 78 60	8 4 4	5.8% 5.1% 6.7%	1.3% 1.4% 1.9%
•	Photographers Male Female	80 67 13	3 2 1	3.8% 3.0% 7.7%	1.2% 1.2% 4.5%
	•	•	•	1	

^{*} Data base is top small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 7

, , , , , , , , , , , , , , , , , , ,	Total Experienced 'Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Technical & Kindred Worker Male Female	h- rs 12,037 7,186 4,852	260 120 141	2.2% 1.7% 2.9%	.1% .1% .1%
Architects Male Female	74 72 2	$\frac{1}{1}$	1.4%	<u>.8%</u>
Actors Male Female	16 7 8	$\frac{7}{3}$	43.8% * *	<u>8.3%</u>
Authors Male Female	. <u>39</u> 18 20	$\frac{1}{0}$	<u>2.6%</u>	1.5%
Dancers . Male Female	$\frac{10}{3}$	$\frac{2}{1}$	20.0%	- <u>7.5%</u>
Designers Male Female	125 98 27	2 1	1.6% 1.0% 3.7%	
Músicians & Composers Male Female	129 88 41	9 6 3	7.0% 6.8% 7,3%	1.3% 1.6% 2.2%
Painters & Sculptors Male Female	. <u>141</u> 80 60	5 3 2	3.5% 3.8% 3.3%	.9% 1.2% 1.3%
Photographers Male Female	76 63 13	1 1 0	1.3% 1.6%	.7% .9%
. ,	, .	` `	•	. ^;

^{*} Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor, Statistics.

TABLE 8

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error. % Unem- ployment
All Professional, Tec nical & Kindred Works Male Female		285 136 150	2.3% 1.8% 2.9%	.1% .1% .1%
Architects Male Female	73 71 2	2 2 0	2:7% 2:8% *	1.0% 1.1%
Actors Male . Female	19 11 8	9 5 4	47.4%	7.2%
Authors Male Female	47 27 21	1 1	2.1% 3.7% 4.8%	1.2% 2.1% 2.8%
Male Female	- 7 · · · · 5	- 2 0 1	*	· · · · · · · · · · · · · · · · ·
Designers - Male Female	132 99 33	$\frac{3}{1}$	2.3% 1.0% 6.1%	.8% .6% .2.5%
Musicians & Composers Male Female	146 102 44	$\frac{6}{4}$.	4.1% 3.9% 2.3%	1.0% 1.1% 1.3%
Painters & Sculptors Male - Female	154 89 65	5/2 3	3.2% 2.2% 4.6%	.9% .9% 1.5%
Photographers	79 67 1 13	$\frac{3}{1}$	3.8% 1.5% 7.7%,	1.2% .9% 4.5%

^{*} Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 9

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional Tec nical & Kindred Worke Male Female	h- rs 13,173 7,700 5,474	425 219 207	3.2% 2.8% 3.8%	.1% .1% .1%
Architects Male Female	74 71 3	$\begin{array}{cccc} & \frac{4}{4} & s \\ & 0 \end{array}$	5.4% 5.6%	1.5% 1.6%
Actors Male Female	20 13 7	7 3·	35.0% 23.1%	-6.9% 7.2%
Authors Male Female	47 26 20	2 0 •1	4.3% * 5.0%	1.6% 3.0%
Dancers Male Female	8 3 5	<u>2</u> 1	* -	
Designers Male Female	135 103 34	10 9 2	7.4% 8.7% 5.9%	1.4% 1.6% 2.4%
Musicians & Composers Male Female	151 104 -47	12, 9	7.9% 8.7% 6.4%	1.4% 1.7% 2.1%
Painters & Sculptors Male Female	155 84 72	9 5 4	5.8% 5.9% 5.6%	1.1% 1.5% 1.6%
Photographers Male Female	8 <u>1</u> 67 14		6.2% 6.0% 7.1%	1.6% 1.7% 4.4%

^{*} Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

APPENDICES

I. Data Reliability and the Standard Error

"Standard Error" (S. E.) is a commonly used measure of sampling variability, that is, a measure of the degree of confidence that can be attached to a statistic which is estimated by a sampling method rather than a complete count.

An individual statistic estimated from a sampling procedure will vary from the "true" figure that would have been obtained from a complete count by an unknown amount due to However, if the Standard Error of an estimated number is known, statistical theory permits a specific interpretation of the estimated number's reliability in terms of probabilities. There is approximately a 2 out of 3 chance (68%) that the difference (either plus or minus) between a sample estimate and the true figure is greater/than the \cdot estimáte's standard error. There is about a \$\mathcal{1}\$5% probabability that the difference between the estimate and the true figure is less than twice the Standard Error. example, (from Table 3), there is approximately a 95% probability that the true percent unemployment of all Writers, Artists, and Entertainers in 1975 was between 6.4% and 8:4% [7.4% - 2 (.5) to 7.4% + 2 (.5)] . About a 5% chance remains that the true value falls outside of this range. This range is sometimes called the "95% of confidence range," and is a commonly used benchmark as an indication of data reliability. The Standard Errors shown in this report have been computed using error tables furnished by the Bureau of Labor Statistics.

A further technical note: The basic concept behind the construction of a confidence range in this way requires that the sample size be reasonably large. A substantial number of the unemployment rates given in Tables 5 through 9 are based on very small samples and it is not valid to interpret a confidence range as more than a rough indication of reliability in these cases. For example, in several cases, the lower limit of a 95% confidence range would be less than 0% unemployment, obviously an impossibility. This problem also arises in cases of moderately large samples

but with a very low estimated rate of unemployment. Even in such cases, however, the calculation of a confidence range can provide a still useful, though often very crude, indication of reliability. As noted in the tables, cases marked with an asterisk are based on samples so small that neither the percent unemployed nor a measure of its reliability would be accurate enough to be considered useful. Accordingly, all cases in Tables 5 - 9 with less than 10,000 persons estimated in the total labor force or with zero unemployment are marked by an asterisk in the percent unemployed column.

Employment and Unemployment Trends.

Some of the data for individual occupations presented in Tables 4 - 9 indicate substantial changes in unemployment. from year to year or overall 5 year trends. However, because of the data reliability problem arising from the very small samples in some cases, most such year to year changes and trends cannot be confidently attributed to other than variations that would be expected to occur due to chance errors There are statistical testing procedures in estimation. available to calculate the probability that a particular statistic varies from year to year because the true figure has varied rather than because of chance fluctuation. 1/A number of the noticeable annual fluctuations in unemployment for the individual occupations do not pass these tests, and it is generally suggested that Tables 4 - 9 should not be used to plot trend lines. However, the total Writers, Artists, and Entertainers in Table 3 can be used to plot a trend line because of the improved reliability that results from the aggregation of data. This trend line is plotted in Figure 1.

$$S.E._{2} - 1 = \sqrt{(S.E._{1})^{2} + (S.E._{2})^{2}}$$

where S. E.₁ and S. E.₂ are the standard errors of the two estimates.

One convenient test uses the Standard Error of the two numbers to be compared (S. E.1 and S. E.2) to compute the Standard Error of the estimated difference between them (S. E.2 - 1). In an identical fashion to the process involving a single statistic, a confidence region can be constructed for the difference between the two estimates. The formula for the standard error of the difference between 2 estimates is:

Need for Additional Research

Seasonality of Employment. Part of the lore of the artistic occupations is seasonality in employment. is thought, to be the greatest for Actors, Musicians, and Similarly, Architects' employment lore suggests a broad peak starting at the beginning of the construction season and continuing at a fairly high level until late fall when construction activity tends to diminish. Other artistic occupations such as Painters and Sculptors, Photographers, and Designers are believed to have relatively lower 'degrees of seasonality in their employment. The data currently available for study is too limited to permit assessment of seasonality. The data obtained in the 1970 Census was based on employment in the week prior to the Census, namely, the last week of March, 1970. This might have been a period of relatively low employment in the year for artists in the performing arts occupations, but was probably a peak period of employment for architects. The available data does not permit the appropriate adjustments to be made. Therefore, the data shown in Table 4 for 1970 may be misleading with respect to percent unemployment of Architects, shown at a fairly low level of 1.4%, if compared with the annualized monthly coverages for 1971 - 1975; and similarly too high for Actors, Dancers, and Musicians and Composérs. The data presented for years 1971 through 1975 is based on an annualized monthly average and is not revealing of seasonal variations of employment:

Virtually no research has been done on the subject of seasonality in unemployment in the artistic occupations. This topic should be part of a broad series of studies to acquire a far better understanding of the characteristics of employment in the artistic occupations.

B. Shifts in Employment Status. A general problem inthe measurement of employment and unemployment is that the
characteristics and conditions of the work force are not
static but are constantly changing in many ways. Of particular importance in the artistic occupations are multiple
employment, sometimes referred to an "moonlighting," and
movements between classifications in which employment, and

unemployment are measured. Unfortunately, however, very little information is available for analysis. Part of the lore of artistic occupations such as Musicians and Composers, Painters and Sculptors, and Writers, is that many individuals derive their principal income from nonartistic occupations. No measure of this condition is presently available. In addition, it is believed that many persons in artistic occupations frequently shift status or maintain a dual status between working for wagés and self-employment. For example a Musician working for wages may also be a self-emilipred music teacher and Painters and Sculptors, and Willers, may work at home or in studios as self-employed individuals without deriving income for their work for long intervals Of time. The distinction between an unemployed artist and a self-employed artist-without income is largely a personal Table 10 shows the numbers of persons in artisself-view. tic occupations working for wages or self-employed in 1970, while Table 11 shows self-employment as a percent of the artistic occupation labor force. Figure 2 diagrams the relationships between the several possible categories of employed; and unemployed individuals in the artist labor force. In addition, a very large group of individuals are to be found in a group not employed or currently seeking employment that are therefore excluded from the labor force total. This includes individuals who are keeping house, at school, ill, or retired. There are undoubtedly substantial shifts between such individuals and those who are working for wages, self-employed, and unemployed. Table 12 shows the numbers of persons who last worked in artistic occupations but were not counted in the labor force in 1970, while Table 13 shows the persons not counted in the labor force as a percent of. the labor force. This group exceeded 100 1000 individuals or about 1/8th as large as the artist labor force in 1970.

Full understanding of the importance of shifts of status to the measurement of employment and unemployment of artists is not possible with currently available information. Substantial additional research is required as part of a broad program to improve understanding of the artistic occupations.

TABLE 10

1970 Glass of Worker of Employed Persons by Defailed Occupation and Sex.

United States Courting and			, it			Wage and salury workers	II y workers	·	•		
Find Find Find Frequent	United States	· ,	*.	Prevate wag	e and salary kers		Governmen				
17 150			Ford	Fotal	fripleyee of own corpodation	· Total	Federal	State	Local	Self employed workers	Unpaid family workers
19 19 19 19 19 19 19 19	Male 16 years old ond over	• • • • • • • • • • • • • • • • • • • •	47 730 🛶		. \$70 \$70		-2 190 545	1 617 682			
13	Architects	* 37	54,194	×	5 364			1 760			
State Stat	edeners, college and university Art arama and music	•	35, 120	71	,> -	234 458		20102			
13 17 17 17 17 17 17 17	Vriters artists, and entertamers	· ·	531 785	396	13.776	86 7		17 108			, 906 -
1 20.5 1 20.5 1 20.5 1 20.5 1 20.5 2	Athletes and kindred warkers	,		2 72	784		% ¢	131			. §
89 227	Authors Doucers	,		•	722		1 510	267			22
58 528 37 1524 2.68 533 773 17.175 55 134 34 160 1524 2.68 533 773 17.175 55 134 34 2.61 100 1.524 2.68 101 18.96 55 134 34 2.015 7.02 2.33 1.017 2.83 17.175 55 14 331 2.06 1.76 7.89 2.470 3.471 1.891 2.523 14 333 2.06 1.36 2.40 185 2.40 185 2.18 2 2.04 3.06 1.33 79 1.06 2.41 2.40 185 2 2.04 3.06 1.33 79 1.06 2.41 1.07 2.40 1.80 199 2.18 2.04 1.30 2.04 2.04 2.04 2.04 2.04 199 2.18 2.04 1.00 2.24 2.05 2.04 1.01 2.05 10 2.26 4.67 2.27 2.04 1.01 2.02 2.04 1.01 2.02 190 2.27 2.04 2.27 2.04	Designers Follow and temperary	.~	83 227	.,	3 275	3 797	. 1 583	1893	533		, %
68 528 53 528 1 574 1 524 2,288 1 7175 17 175 17 175 17 175 17 175 17 175 17 175 17 175 17 175 17 175 17 175 18 968 17 175 18 968 17 175 18 968 <td></td> <td>· -</td> <td>84 608</td> <td>۹ ,</td> <td>958 -</td> <td>/ 613</td> <td>4 289</td> <td>× 2 676°.</td> <td>3</td> <td></td> <td>. 155</td>		· -	84 608	۹ ,	958 -	/ 613	4 289	× 2 676°.	3		. 155
Signature Sign	Musicians and compasers		58 528	200 C	701 -	1 524	. , 268	83/	723		, 217
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Photographers	٠.	55 147	32 844	2 015	27.00 7.00 7.00 7.00 7.00 7.00 7.00 7.00	2 353	2 765	059		23
25 25 35 35 36 870 26 074 510 77 37 37 30 870 27 200 1339 27 16 17 6 74 1431 6 77 100 5 75 870	Public relations over and publicity writers Rocks and television appropries		859 75	4 219 50		818	2 470	3 471	1.871		8 25
29 074 510 70 018 704 164 915 5 6.76 267 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 000 704 1 100 704 <	Writer orhists and evieridmers wec	*.	17 933	(S))	744	37.	2 331		202	77.4
2 000 1 339 79 176 64 60 526 10 526 4 9 620 - 89 659 2 121 70 724 16 773 10 526 4 9 620 - 6 029 2 121 70 724 16 773 2 229-300 1 000 2 928 2 121 7 0 724 18 73 18 33 3 855 3 086 4 00 7 34 2 234 1 18 3 30 4 051 2 947 2 773 99 274 1 90 1 832 4 051 2 273 99 274 1 90 1 832 2 051 2 273 99 274 1 90 1 832 2 051 2 273 99 274 1 90 1 832 2 052 2 273 99 2 27 1 90 1 832 2 052 2 273 4 09 6 039 3 329 2 267 4 43 2 445 2 050 2 25 2 27 2 27 2 27 2 267 4 236 </td <td>Female, 16 years old and ever</td> <td></td> <td></td> <td></td> <td>16.8 915</td> <td>\$ 476 267</td> <td>1 67 784</td> <td>7 7 7 7 7</td> <td>2 154 247</td> <td>1</td> <td></td>	Female, 16 years old and ever				16.8 915	\$ 476 267	1 67 784	7 7 7 7 7	2 154 247	1	
139 278	rchitecis			1 339	\$	176	3	8	25	7/2	•
227-300 171 000 2 928 20 000 183 183 183 183 185	echers callege and university Art drama and music	4	139 278		1	859 OF	2 1		16 793		
3 855 3 086 96 4 273 99 274 180 260	riters artists and entertainers.		- \229.3091		2 9.78	20°57	. 7%		180	26 36	, ,
1	Actors	,	3 855	3 086	}	789	011		2	262	21
2 4 901 2 552 718 611 147 298 1667 777 2 59 1004 4 298 1667 2 445 175 2 445	Authors.	••••••••••••••••••••••••••••••••••••••	2 P	2 947	274	2 273	\$ \$	272	<u>8</u> .8	1 832	23(
25 043	Dancers	· :	106.7			8:	24	ξ×	3 '	286	-
31 496 25 372 107 1 768 226 538 1 004 4 288 1 37 459 229 15 625 2 771 805 1 354 612 11 903 11	Editors and reporters	2 / · · · ·	76. 76. 76. 76.		, 60 4	603	3 329	298 2 267	<u>§.</u> 2	275	<u>\$</u>
15 873 10 18 18 18 18 177 1805 137 1805 137 1903 11 903 11	Musicians and composers	-			107	, 89/	, ,		2	96	3 3
15 8 8 1	Pointers and sculptury	• • • • • • • • • • • • • • • • • • • •	37 459		. 625	177. 2	808	354	612		
15 833 10 48 184 2 047 846 691 3 489	Public relations men and publicity writers		23803		88.	, 777 , 641 .	367	327	æ £		262
/ 15 833 10 has 184 2 047 846 691 510 3 489	Radia and televisian annaugcers.	, ,	7		,	. 55	3	3 æ		200	2
	Writers, ortists, and entertainers in e.c.	•			181	2 047	846	169	810	3 489	691

26

Subject 1970 Table 51, Bureau of the Census, Census of Population: Final Report PC(2) 7A, Occupational Characteristics. Reports, Source:

TABLE 11

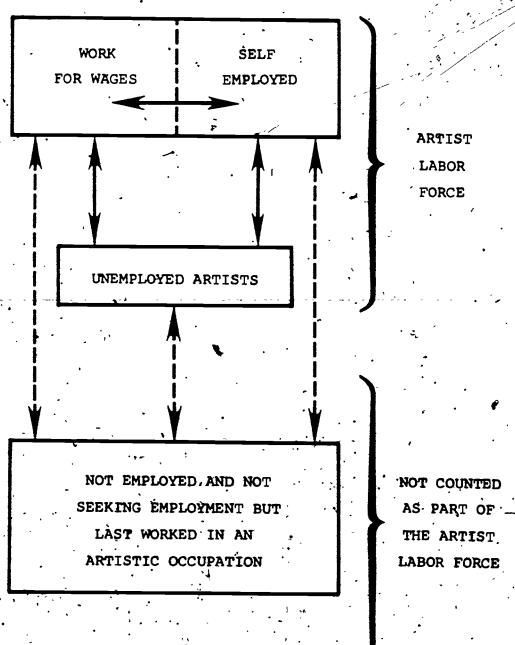
SELF-EMPLOYMENT AS A PERCENT OF SELECTED ARTISTIC OCCUPATIONS LABOR FORCE: 1970

Architects	`.30 .8 %
Actors .	12.4%
Authors	32.5%
Dancers	4.1%
Designers	8.3%
Musicians & Composers	29.3%
Painters & Sculptors.	28.7%
Photographers	45.8%

Source: Table 10

FIGURE 2

DIAGRAM OF POSSIBLE SHIFTS IN LABOR FORCE STATUS WITHIN THE ARTISTIC OCCUPATIONS.



TABLE, 12

Worked 1960 to 1970, by Detailed Employed, Experienced Unemployed, Not in Labor Farce, B Occupation and Sex: 1970

		*	M ole		•	/ Femole	ok ok	
Inited States	Ехремен	Expensed civilian labor force	or force	Not in	Ехреген	Experienced civilian labor force	r torce	Nor
	.Totul	Employed	Experienced unemployed	lost worked 1960 to 1970	Total	(mployed	Experienced uneignployed	lobor force. lost worked 1960 to 1970
. Tated, 16 pools and awar	49 536 472	47, 730 441	1 805 811	9 306 366	30 534 658	29 074 510	1 440 148	12 461 416
irchitects	54 948	761 75,	757	80%	2 133	2 090	63	082
eochers, college and university	354 671	352 429	2 242	20 845		139 278	2 463	1 69
Writers, orlists, and entertainers			133	906	10 662	10 526	136	73E E
Actors			22 338	75 30		229 309	14 142	.25 215
Athletes and kindred workers	37 99R		000	3 141		3 855	2 072	5 814
Authors	18 069		747	780 6		13 051	86	18 078
Doncers			***	2 6	6 4 4		324	3 328
,	85,243		, 614	300	200.5		752	4 733
Editors and reparters			2 403	8-828	7 E	200	5 5 5	12 466
Musicians and composers		700					λγς γ .	65, 65
Pointers and sculptors		26 256	2 449	258		31 496	38	666 ₹1
Photographers			200	0 3			2 100	. 17 587
Public relations men and publicity writers			3,5	5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	-	803	. 631	<u>ک</u>
Rodia and lelevision announcers	20 873		\$15	? -	423	\$; 2.7 2.7	\$22	2
writters, ortists, and entertainers, n'e c		44 933	200	94.59	•	200		38

1970 Subject Table 51, Bureau of the Census, Census of Population: Final Report PC(2)-7A, Occupational Characteristics. Source: Reports,

TABLE 13

PERSONS NOT IN LABOR FORCE BUT LAST I WORKED IN ARTISTIC OCCUPATIONS 1960 TO 1970, AS A PERCENT OF SELECTED ARTISTIC OCCUPATION LABOR FORCE: 1970

Architects	10.0%
Actors	.63.3%
The second of th	21.2%
Dancers	74.2%
`Designers'.	16.5%
Musicians & Composers	28.5%
Painters & Sculptors	22.2%
Photographers	

Source: Table 51, U.S. Bureau of the Census, Census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

C. Data Frequency. The best data available at the present time for the study of employment and unemployment of artists are from the decennial censuses conducted by the Bureau of the Census. This data is fairly detailed and makes possible the study of many aspects of the employment and unemployment of artists. However, the ten year interval is so great that comparisons from census to census are a coarse measure of change. Within the ten year interval. the annualized monthly averages data available from the Bureau of Labor Statistics provides some interesting information that is helpful in understanding gross trends in employment and unemployment for the aggregate group of Writers, Artists, and Entertainers and selected occupational classifications. This data, however, is less accurate because of the sample size and many of the detailed data elements of the decennial census are not included,

A change of the census period from the ten year interval to a five year interval beginning with 1985 is now proposed in the Authorization Bill for the 1980 Census. This change would provide a significant improvement in the data available for the study of the artistic occupations.